FIG.1

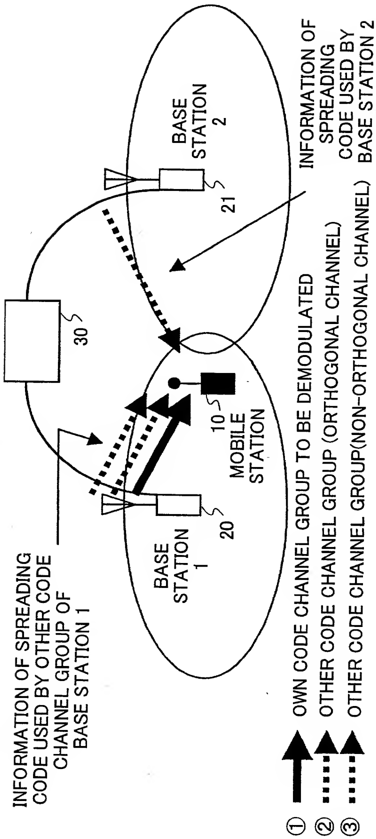
INFORMATION OF SPREADING CODE USED BY OTHER CODE CHANNEL GROUP OF BASE STATION 1
30
BASE STATION 1
20
10
MOBILE STATION
BASE STATION 2
21
INFORMATION OF SPREADING CODE USED BY BASE STATION 2
① OWN CODE CHANNEL GROUP TO BE DEMODULATED
② OTHER CODE CHANNEL GROUP (ORTHOGONAL CHANNEL)
③ OTHER CODE CHANNEL GROUP(NON-ORTHOGONAL CHANNEL)

FIG.2

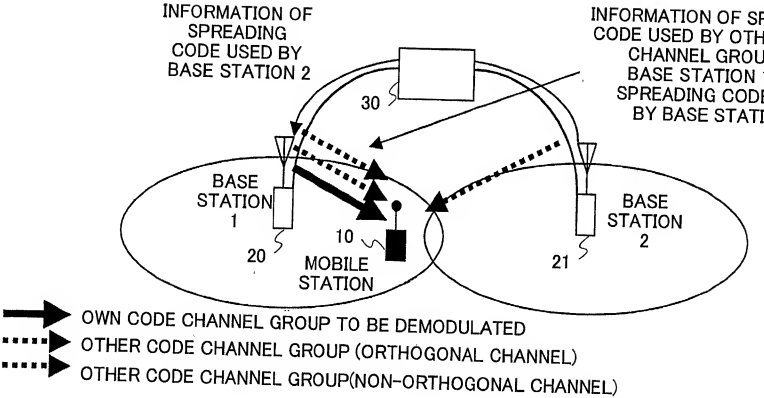

FIG.3A

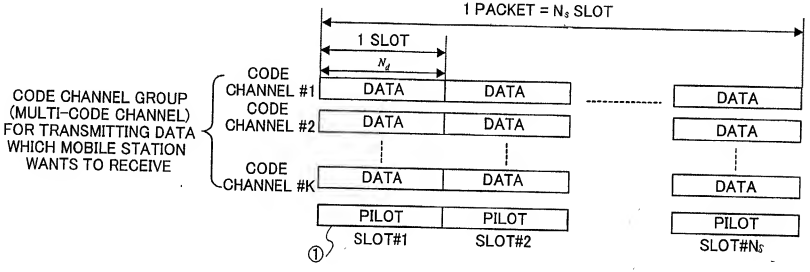

FIG.3B

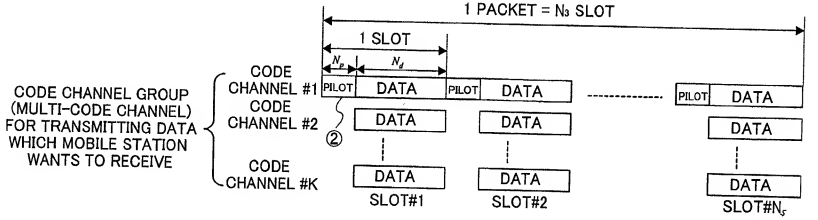

FIG.4

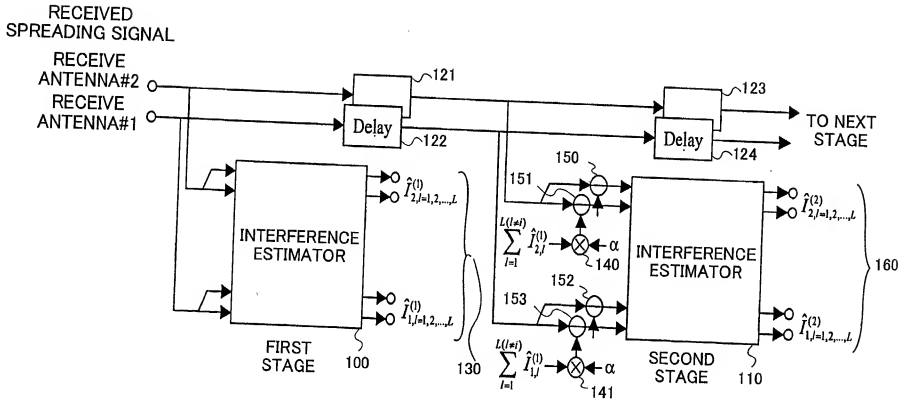

FIG.5

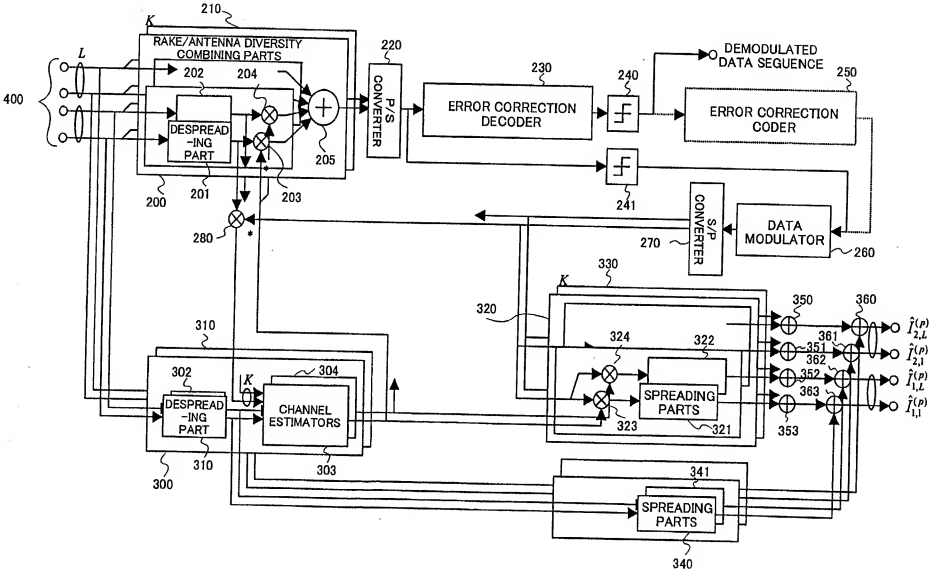

FIG.6

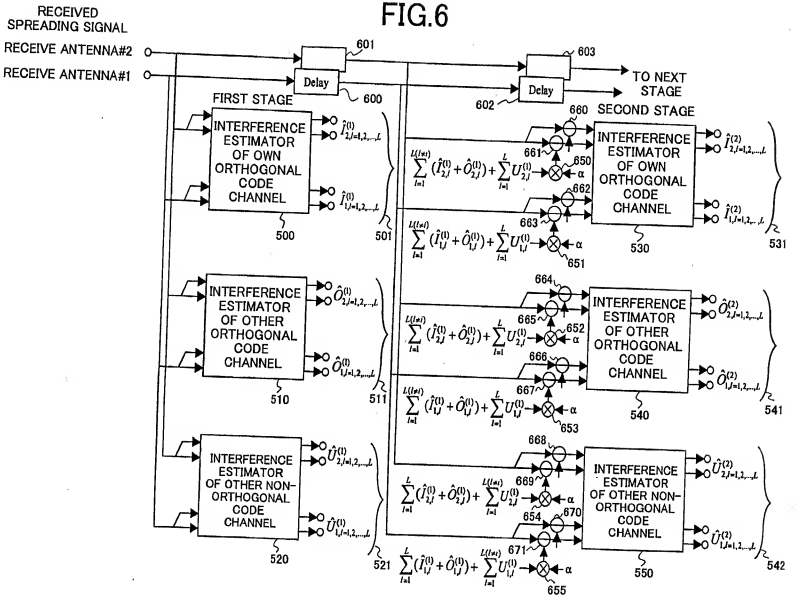

FIG.7

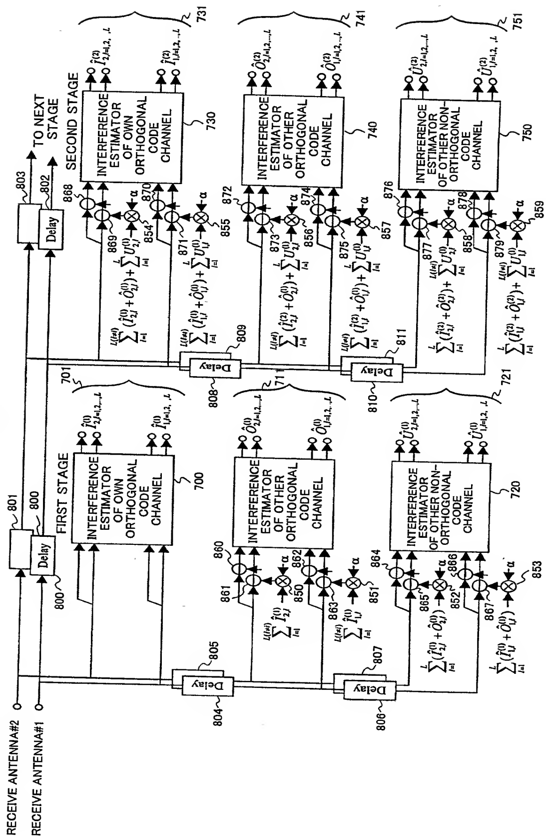
RECEIVED SPREADING SIGNAL
RECEIVE ANTENNA#2
RECEIVE ANTENNA#1
FIRST STAGE
SECOND STAGE
TO NEXT STAGE
INTERFERENCE ESTIMATOR OF OWN ORTHOGONAL CODE CHANNEL
INTERFERENCE ESTIMATOR OF OTHER ORTHOGONAL CODE CHANNEL
INTERFERENCE ESTIMATOR OF OTHER NON-ORTHOGONAL CODE CHANNEL
Delay
700
701
711
720
721
730
731
740
741
750
751
800
801
802
803
804
805
806
807
808
809
810
811

FIG. 8

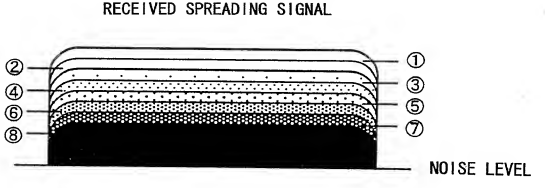

FIG. 9A

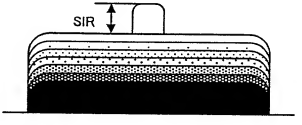

FIG. 9B

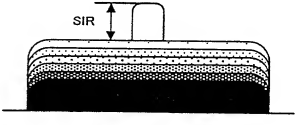

FIG. 9C

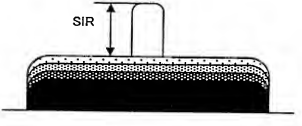

FIG. 9D

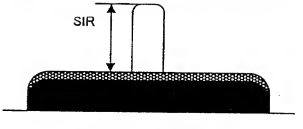

FIG. 9E

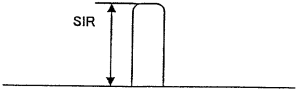

FIG. 10

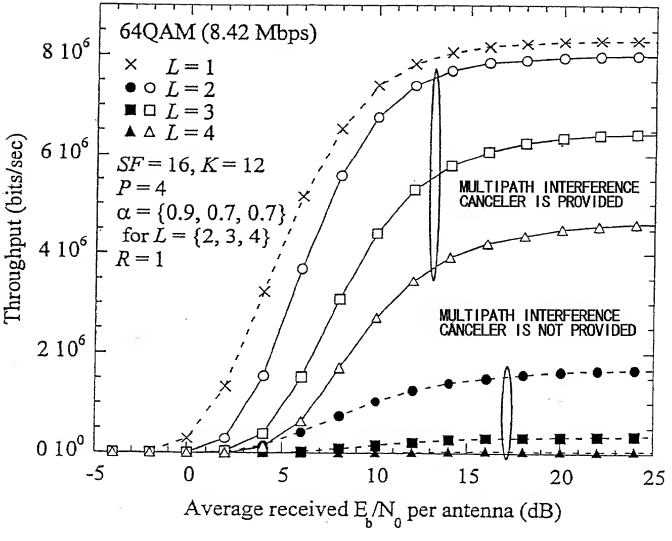
64QAM (8.42 Mbps)
× L = 1
● ○ L = 2
■ □ L = 3
▲ △ L = 4
SF = 16, K = 12
P = 4
α = {0.9, 0.7, 0.7}
for L = {2, 3, 4}
R = 1
MULTIPATH INTERFERENCE CANCELER IS PROVIDED
MULTIPATH INTERFERENCE CANCELER IS NOT PROVIDED
Throughput (bits/sec)
8 10^6
6 10^6
4 10^6
2 10^6
0 10^0
-5
0
5
10
15
20
25
Average received Eb/N0 per antenna (dB)

FIG. 11

Chip rate		3.84 Mcps
Symbol rate		240 ksps
Information bit rate		8.42 Mbps
Spreading factor (SF)		16
Number of multicodes		12
Spreading code	Chanelization code	Tree-structured orthogonal sequences
	Scrambling code	Truncated Gold sequence
Modulation	Data	64QAM
	Spreading	QPSK
Channel coding / decoding		Convolutional coding (Rate=1/2, k=9) / Soft decision Viterbi decoding
Antenna diversity		2-branch
Channel model		L -path Rayleigh $f_D = 80$ Hz